

## **COLUMBIA RIVER REGIONAL FORUM**

### **TECHNICAL MANAGEMENT TEAM**

December 3, 2008 Meeting

#### **FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS**

Facilitator: Robin Gumpert

Notes: Erin Halton

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members.

#### **Review of Minutes/Agenda**

The November 5<sup>th</sup>, 7<sup>th</sup>, and 12<sup>th</sup> facilitator notes and official meeting minutes were posted to the TMT webpage. No changes were made during the meeting, and the notes are considered final unless otherwise notified by a TMT member. The 11/19 facilitator notes were posted to the web and TMT will look to finalize them, as well as the 12/3 notes at the 12/17 meeting.

#### **Vernita Bar**

Paul Wagner, NOAA, and Scott Bettin, BPA, reported that the minimum elevation protection level had been set at 60 kcfs and that the total count of fish in the reach was around 20,000, which is higher than in previous years. Russell Langshaw, Grant County PUD, added that there will be efficiency estimate work via hand excavation over the coming weeks and noted that flows would likely be in the 65 kcfs range this coming weekend. TMT members thanked Langshaw for providing data to the team this season.

**Action/Next Steps:** Langshaw will provide an update to TMT during a February meeting, prior to the 2009 spill season.

#### **Chum Operations**

Dan Feil, COE, reported that chum operations remain as they have for the past weeks, with an 11.3-11.7 foot tailwater elevation range. He referred TMT to summary and graph links for weeks 3 and 4, posted as links to the agenda; operations during week 3 stayed within the range during daytime hours with some increases at night, while week 4 operations have been within the tailwater criteria throughout 24 hour time period. Tony Norris, BPA, added that flows have been augmented from Grand Coulee to achieve the tailwater target elevation. Feil also referred TMT to a link to data from the Fish Passage Center (FPC) website, which showed live, redd and dead chum counts. TMT reviewed 2007 data on the FPC as well and observed that there were fewer redds last year.

**Action/Next Steps:** TMT will discuss chum operations at their meeting on 12/17.

Dennis Schwartz, COE, reported that the chum workshop hosted by Pacific Northwest Laboratories at the Skamania Lodge on 12/2 was the culmination of three years of research on river conditions, TDG and their effect on chum. The workshop asked

participants to consider current/future tools and management strategies as they relate to TDG and whether there is support for continued/new chum research projects in 2010. Schwartz said that an emergence model would be a very useful tool. Paul Wagner, NOAA, added that attendees discussed 2007 springtime groundwater conditions.

### **Albeni Falls Operations Update**

Jim Adams, COE, reported that Albeni Falls continues to operate within its elevation target range of 2051-2051.5'. Russ Kiefer, ID, provided TMT with a recap of live kokanee spawning counts thus far: on 11/10, 412; on 11/17, 1245; on 11/24, 912; and on 12/1, 796. This indicates that the peak has passed, but that spawning will continue for the next 2-3 weeks. TMT members recalled that the criterion for determining the end of spawning in previous years has been when there are no fish observed for a period of one week.

**Action/Next Steps:** There will be a joint IDFG/USFWS/COE/BPA conference call on 12/5, to discuss a draft operational request for elevation flexibility at Lake Pend Oreille this winter; TMT may discuss any subsequent SOR at the 12/17 meeting. Kiefer said he would provide a historical graph, with year-to-year spawning comparisons for the 12/17 meeting.

### **Snake River Zero Nighttime Generation**

Tony Norris, BPA, referred TMT to revised graphs on zero generation data from early 2008 posted as a link to the TMT agenda. TMT members referenced the end of passage criteria recommended by the Salmon Managers in 2005, which was in SOR #2005-22.

**Action/Next Steps:** The criteria from the 2005 SOR will be posted as a link to the agenda for the 12/17 meeting to help guide TMT discussion.

### **2009 Draft Water Management Plan**

Dan Feil, COE, reported that all comments the Water Management Plan (WMP) that had been received by the COE had been posted to the TMT webpage; the revised version with all edits incorporated was yet to be posted. A word version of the Fall/Winter Update to the WMP was also posted to the webpage. TMT members discussed a shared interest in seeing an earlier release of the Fall/Winter Update of the WMP (such as 9/1/2009) in the future, so that the updates might serve as a plan as well as a reflection of operations underway.

**Action/Next Steps:** TMT will review the revised version of the WMP at the 12/17 meeting and the document will be finalized by the end of the year. TMT members may send their comments on the Fall/Winter Update directly to Feil for posting. Feil noted that the COE will also post the Chum Operations Plan once language is added to reflect current operations.

### **Operations Review**

**Reservoirs:** Grand Coulee was at elevation 1281.6', slowly drafting to meet the tailwater elevation criteria at Bonneville. Hungry Horse was at elevation 3528.5', with outflows of 2 kcfs. Libby was at elevation 2433.6', with inflows ranging from 4-5 kcfs and outflows of 18.8 kcfs; the project shifted to a 3-unit operation on 12/1 and will likely

continue through December. Bob Heinith, CRITFC, asked when the project was likely to achieve an elevation of 2411', and the COE clarified that it will likely be on 12/31, noting that the water supply forecast/flood control target for Libby will be posted in the next couple of days. **Action:** Dave Wills, USFWS, offered to talk with Heinith after the meeting as to where this type of data can be found online. Albeni Falls was at 2051.2' and continued to operate within a .5' range, as it has since 11/7. Dworshak was at 1527.3', with inflows mainly in the range of 2-3 kcfs (but were 4.5 kcfs on 12/2) and outflows of 1.6 kcfs. Seven day average inflows were 20.3 kcfs at Lower Granite, 110.8 kcfs at McNary and 125 kcfs at Bonneville.

Fish: Nothing other than chum to report at this time.

Power System: Nothing to report at this time.

Water Quality: Nothing to report at this time.

**Next Meeting: 12/17**

Agenda items will include:

- Chum Operations
- Albeni Falls Update/Post-spawning Operations
- Snake River Zero Nighttime Generation
- WMP/Fall-Winter Update – Edits Review
- AFEP Highlights
- Operations Review

**Columbia River Regional Forum  
Technical Management Team Meeting  
Dec. 3, 2008**

**1. Introduction**

Today's TMT meeting was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (DS Consulting) with representatives of BPA, COE, NOAA, USFWS, FPC, CRITFC, Idaho and others participating. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

**2. Review Meeting Minutes**

Any revisions to the meeting minutes for Nov. 5, 7 and 12 will be emailed to the COE and subsequently distributed to all TMT members. These notes will otherwise be considered final.

**3. Vernita Bar**

The final redd count was done at Vernita Bar, and the protection level was set at the 60 kcfs elevation, Paul Wagner (NOAA) reported. Approximately 20,000 spawners have been counted in the region so far this year, Scott Bettin (BPA) reported.

Grant PUD plans to build some redds this coming Sunday, Dec. 6, then dig them up to evaluate the accuracy of sampling estimates, Russell Langshaw (Grant PUD) reported. Researchers have abandoned the hydraulic sampling method, which was variable and time-consuming, in favor of doing excavation counts by hand. The redd experiment will require a temporary drop in flows of about 30 kcfs below the elevation at which the redds are built. The current inflow forecast for Saturday is about 95 kcfs, so if flows remain at that level, that means a drop to about 65 kcfs on Sunday, Dec. 7, which is still above the critical elevation. Langshaw will continue to provide updates to TMT via phone in January and February as the protection program progresses.

**4. Chum Operations Update**

The COE is still operating under teletype number 3, which is posted to the last TMT meeting agenda, Dan Feil (COE) reported. The teletype specifies an 11.3-11.7-foot tailwater criterion. The first two links on today's agenda are data from weeks 3 and 4 of the operation. During the first few days of week 3, flows and tailwater elevations went up at night, but generally the tailwater elevation has been held between 11.3-11.7 feet. During week 4 which was last wk, the 11.3-11.7-foot range was maintained on a 24-hour basis. Flows have been

manageable, and there has been no significant precipitation, so the operation is proceeding well. Tony Norris (BPA) noted that these flows are being augmented with storage from Grand Coulee, which helps to keep flows manageable.

The third link to this item on today's agenda is to the FPC web page, which has data surveys through Nov. 24, 2008, and a comparison to the 2007 run which is a bit late this year, Dennis Schwartz (COE) reported. There was discussion of the fact that fewer redds appear to be in the water than last year, despite good visibility. This doesn't look like a good year for chum according to field observations.

There was discussion of a chum workshop held yesterday which several TMT members attended. The meeting was a culmination of 3 years of research regarding the Ives Island and Multnomah Falls spawning sites below Bonneville Dam. The workshop reviewed river conditions, total dissolved gas levels, and studies of the riverbed at both sites. The findings include field and lab reports regarding lethal levels of TDG exposure to sac fry in redds due to gas bubble trauma. The work included river sampling of fry in 2007. A follow-on experiment in 2008 involves monitoring of artificial redds for TDG exposure every 2 weeks throughout emergence.

The main questions being addressed were: Is TDG exposure of chum redds a problem? Is a better operational strategy needed? Does sufficient information exist to make management decisions on river operations for chum? Ongoing research appears to be needed, and development of a model for chum emergence would be valuable. The workshop provided a focus for limited research dollars in 2010 when spill wall construction at The Dalles will consume much of the CRFM budget.

The workshop looked mainly at spring conditions and the effects of spill, not effects of tailwater elevations, Paul Wagner noted. Questions about chum spawning in groundwater areas initiated the research: Are redds affected by surface TDG levels if they have their own sphere of groundwater protection? That appears to be case at the Multnomah Fall site, where groundwater influence is strong enough to provide a buffer. The movement of ground and surface water at the Ives Island location makes high TDG levels there less safe for chum. However, even at Ives Island TDG is not a big issue due to depth compensation. At both redd spawning sites, TDG saturation levels remained below 105% throughout the study, regardless of readings on the water surface.

## **5. Albeni Falls**

**a. Operations Update.** The COE has had no problems operating the Albeni Falls pool between 2051 and 2051.5 feet at the Hope gage as requested. This operation will continue until completion of kokanee spawning.

**b. Kokanee Spawning Update.** Russ Kiefer (Idaho) gave an update on kokanee redd counts and criteria for declaring the end of spawning season. The numbers of live spawners observed at the spawning grounds were: 412 adults the week of Nov. 10; 1,245 adults the week of Nov. 17; 912 adults the week of Nov. 24; and 796 adults the week of Dec. 1. Spawning has peaked and is beginning to decline, but is expected to last for another 2-3 weeks. . Last year's redd count was 397, compared to 900 redds this year at the last count which was 2 weeks ago.

This Friday, Dec. 5, USFWS, the COE, BPA, and IDFG will confer to discuss the second SOR regarding flexibility of winter elevations at Lake Pend Oreille. The plan is to present the SOR at the next TMT meeting Dec. 17. Kiefer will present recommended criteria for declaring the end of spawning at that meeting. He will present a graph depicting kokanee spawning and returns over the past several years.

## ***6. Snake River Zero Nighttime Flow***

There was discussion of the point at which adult runs could be considered sparse enough to initiate zero flow this year, given that this operation didn't start last year until the fish ladder at Lower Granite closed the end of December.

Adult counts posted through Nov. 25, 2008, show that passage is still occurring in significant numbers, so it's still too early to begin zero nighttime flows, Tony Norris (BPA) reported. The wild steelhead population count since June 1, 2008, is around 41,000 fish and the total adult steelhead population count for that time period is approximately 164,000 fish, Wills reported. TMT discussed total steelhead returns vs. wild returns and the criteria for initiating zero nighttime flow when "few if any fish" are passing. Criteria that were used in the past can be found in SOR 2005-22 on the TMT website. These criteria were recommended by the Salmon Managers and were not necessarily agreed to by all TMT members, Kiefer noted. This issue will be revisited at the next TMT meeting.

## ***7. Water Management Plan Update***

The fall/winter update is ready for review, Dennis Schwartz reported. The chum operations plan will soon be posted as well, Feil said. The Salmon Managers are still reviewing a draft of their basic chum strategy.

There was discussion of a general schedule for reviewing the WMP and its associated updates. Reports on the status of operations are being rolled into the WMP as they are completed, so the document is in a continual state of development. The original objective was to have a draft by Nov. 1 that described the agreed-upon operation, with changes made as needed, Wagner recalled. Typically the WMP has been revised during December to reflect current

conditions, ideally functioning as both a plan and a report. Wagner suggested starting work in August on the fall/winter update; Norris suggested starting work on both the draft plan and fall/winter update Sept. 1. Work on the spring/summer update could begin around Feb. 1 when water supply forecasts are available. The BiOp has a schedule for the draft and final WMP iterations, Wagner said. TMT will revisit this issue on Dec. 17.

## **7. Operations Review**

**a. Reservoirs.** Grand Coulee is at elevation 1,281.6 feet and slowly drafting over the past 10 days to support the chum operation at Bonneville.

Hungry Horse is at 3,528.75 feet elevation, discharging 2.0 kcfs.

Libby is at elevation 2,433.6 feet, with inflows of 4-5 kcfs and outflows of 18.8 kcfs. On Dec. 1, the operation ramped up to 3 units, which will continue for the rest of the month. An early forecast shows Libby inflows at 108% of average for April-August 2009. Based on the most recent forecast, the COE expects Libby to reach its 2,411-foot target elevation around Dec. 31, with slow steady drafting of the reservoir at variable rates until then. The COE calculates end of month flood control elevations based on each monthly forecast. The December forecast for Libby, available a few days from now, will include its end of month flood control elevation. This information is available on the TMT website under flood control.

Albeni Falls continues to operate at 2,050-2,050.5 feet elevation through the end of kokanee spawning season. Current elevation is 2,051.25 feet. The project is essentially passing inflows.

Dworshak is at elevation 1,527.3 feet, still passing minimum outflows of 1.6 kcfs. Inflows have been about 2-3 kcfs but increased yesterday to 4.5 kcfs. A very early inflow forecast shows inflows at 128% of average for April-July, 2009.

The 7-day average at Lower Granite is 20.3 kcfs; at McNary, 110.8 kcfs; at Bonneville, 125 kcfs.

**b. Fish.** There was nothing to report today beyond chum activity discussed earlier.

**c. Power System.** There was nothing to report today.

**d. Water Quality.** There was nothing to report today.

## **9. Next Meeting**

The next regular TMT meeting will be Dec. 17, with chum operations; Albeni Falls operations; Snake River zero nighttime flow; a WMP update; any relevant information from the AFEP review; and the standard operations review on the agenda. Subsequent TMT meeting dates were set as follows: Jan. 7, a tentative conference call; Jan. 14 and 28, meet in person. This summary prepared by consultant and writer Pat Vivian.

<b><i>Name</i></b>	<b><i>Affiliation</i></b>
Tony Norris	BPA
Dennis Schwartz	COE
Paul Wagner	NOAA
David Wills	USFWS
Jim Adams	COE
Tim Heizenrader	Centaurus
Bob Diaz	Renewables
Dan Feil	COE

### ***Phone:***

John Roache	BOR
Dave Benner	FPC
Holli Krebs	J.P. Morgan
Russ George	WMC
Richelle Beck	DRA
Barry Espensen	CBB
Tom Le	Puget Sound Energy
Scott Bettin	BPA
Russ Kiefer	Idaho
Russell Langshaw	Grant PUD
Bob Heineth	CRITFC